

## **BalticC\_MarineData: Research Vessel Cruises**

### 1.) General description of the data set:

Data set of dissolved inorganic carbon, total alkalinity, CO<sub>2</sub> partial pressure, pH, O<sub>2</sub>, H<sub>2</sub>S, nutrients, fluorescence, temperature and salinity from vertical profiles from several stations of the whole Baltic Sea from the Kattegat to the Bothnian Bay. The data were collected on several cruises between June 2008 and July 2010.

### 2.) Created:

06/2009

### 3.) Last update:

12/2010

### 4.) Keywords:

Baltic Sea, vertical profiles, dissolved inorganic carbon, alkalinity, pH

### 5.) Area:

Baltic Sea

### 6.) Spatial extension:

Longitude: 10.3 – 28.0 E

Latitude: 54.3 – 65.7 N

### 7.) Spatial resolution:

Sampling stations in the main basins of the Baltic Sea and additional stations on transects between them

Vertical: every 5 to 20m from surface to bottom

### 8.) Time window:

One summer 2008 – summer 2010

### 9.) Temporal resolution:

18.06. – 14.07.2008

12.01. – 06.02.2009

26.03. – 07.04.2009

03.08. – 10.08.2009

28.08. – 08.09.2009

11.01. – 04.02.2010

09.08. – 12.08.2010

30.06. – 12.07.2010

## 10.) Data and arrays:

<b>Parameter</b>	<b>Unit</b>	<b>Uncertainty</b>
<b>T</b> = temperature	°C	± 0.005 °C
<b>S</b> = salinity		± 0.01
<b>AT</b> = total alkalinity	µmol/kg	± 5 µmol/kg
<b>CT</b> = total CO <sub>2</sub> (in fact = DIC, unfiltered samples)	µmol/kg	± 2 µmol/kg
<b>pCO<sub>2</sub></b> = partial pressure of CO <sub>2</sub>	µatm	± 5 µatm
<b>pH</b> (NBS scale)		± 0.01
<b>O<sub>2</sub></b> = O <sub>2</sub> concentration (WINKLER)	µmol/l	± 1µmol/l
<b>O<sub>2</sub> satur.</b> = percent of O <sub>2</sub> saturation level	%	± 0.1 %
<b>H<sub>2</sub>S</b> = H <sub>2</sub> S concentration	µmol/l	± 1 µmol/l
<b>Fluor</b> = fluorescence measurements		
<b>NH<sub>4</sub></b> = ammonium concentration	µmol/l	± 0.1 µmol/l
<b>NO<sub>3</sub>NO<sub>2</sub></b> = sum of nitrate and nitrite concentrations	µmol/l	± 0.12 µmol/l
<b>NO<sub>3</sub></b> = nitrate concentration	µmol/l	± 0.1 µmol/l
<b>NO<sub>2</sub></b> = nitrite concentration	µmol/l	± 0.02 µmol/l
<b>PO<sub>4</sub></b> = phosphate concentration	µmol/l	± 0.02 µmol/l
<b>SiO<sub>4</sub></b> = silicate concentration	µmol/l	± 0.1 µmol/l
<b>totN</b> = total nitrogen	µmol/l	± 0.5 µmol/l
<b>totP</b> = total phosphor	µmol/l	± 0.1 µmol/l

Uncertainties are due to scientific criteria and have to be used in scientific publications. Tolerance limits required for accreditations may be on higher values.

## 11.) Reference to other data sets:

No

## 12.) Data quality (degree of validation):

Validated

## 13.) Where to find the data?

Data are stored in the Baltic-C data base and are available through the contact persons

14.) Contact person:

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